

K131553

**510(k) SUMMARY**

**SUBMITTER:** Sorin Group Deutschland GmbH  
Lindberghstrasse, 25  
D-80939 München  
Germany

**CONTACT PERSON:** Luigi Vecchi  
Phone: 39 0535 29811  
Fax: 39 0535 25229

**DATE PREPARED:** March 04, 2014

**DEVICE TRADE NAME:** XTRA

**COMMON NAME:** Autotransfusion System

**CLASSIFICATION NAME:** Apparatus, Autotransfusion

**CLASSIFICATION CODE:** CAC

**REGULATION NUMBER:** 868.5830

**UNMODIFIED DEVICE(S):** XTRA Autotransfusion System (K112245)

**DEVICE DESCRIPTION:**

XTRA is an Autotransfusion System designed to recover shed blood during intraoperative and postoperative procedures and for collection of platelet poor plasma (PPP) and platelet rich plasma (PRP) in preoperative procedures.

It is a software-controlled device provided with disposable and hardware elements that include the following major components: master, driving actuators (pump, centrifuge, clamps, pump loop ejector, cover lock), control and monitoring sensors, and an user interface (display panel and keyboard).

The modified device is a software upgraded version (SW 1.05.0) of the unmodified device (SW 1.02.0).

The current SW release 1.05.0 has been implemented to improve device's performances and to respond to feedback/indications coming from the users in the field. Other minor changes have been also implemented for user convenience and some bugs have been fixed. The main performances improvement implemented with the new SW upgrade consists of the introduction of a new factory protocol (Pfap) that has been optimized to eliminate non emulsified fat from the processed blood. The labeling and the instructions for use have been generally updated to include Pfap features as well as to reflect the modifications, where applicable.

## **INDICATION FOR USE:**

The XTRA Autotransfusion System is indicated for intraoperative and postoperative recovery of blood, washing of the processed blood and preoperative sequestration (with indirect patient connection). Typical clinical applications of autotransfusion include the following surgical specialties: Cardiovascular, Orthopedics, Thoracic, Transplant Surgery, Emergency (Trauma), Neurosurgery, Obstetrics and Gynecology, and Urology.

## **TECHNOLOGICAL CHARACTERISTICS:**

The modified device XTRA with software 1.05.0 has the same fundamental scientific technology, operating principles and control mechanisms of the unmodified device.

Compared to the unmodified device, XTRA with software 1.05.0 is manufactured with the same fundamental manufacturing process and is provided with the same hardware components.

No change to the intended use has been made as a result of the modifications.

There are no differences in packaging type and material between unmodified and modified device.

The disposable provided with both modified and unmodified devices is ethylene oxide sterilized and have a non-pyrogenic fluid path. It is for single use only.

Sorin Group Deutschland GmbH believes that the XTRA with software 1.05.0 is substantially equivalent to the unmodified device and to other currently marketed automated autotransfusion devices, that any differences are minor, and raise no new issues of safety and effectiveness.

## **NON CLINICAL TEST RESULTS:**

Applicable tests were carried out in accordance with the requirements of ISO 10993-1 and the FDA May 1st, 1995 Memorandum on the use of the ISO 10993 standard for biocompatibility testing of raw materials.

The disposable designed for the modified device, XTRA with software 1.05.0, is identical to the disposable provided with the XTRA Autotransfusion device originally cleared (K101586). The same materials are in contact with blood.

As no new materials are used, this 510(k) cross references biocompatibility data to the XTRA 1.00.0 (K101586).

The electrical safety of XTRA 1.05.0 was determined by testing the unit against the IEC 60601-1 electrical safety standard.

### **IN VITRO TEST RESULTS:**

*In vitro* testing was performed in order to provide the data necessary to demonstrate both the substantial equivalence with the unmodified device and also to comply with safety and effectiveness requirements.

Comparative tests were performed according to internal methods developed by the manufacturer.

The following table lists the performance tests conducted to demonstrate compliance to the product's performance specifications. The XTRA 1.05.0 successfully met all acceptance criteria for each test.

TEST	TEST CLASSIFICATION	TEST TITLE
1	Functional/Performance	Processing performances for intraoperative use (fat removal performance)
2	Functional/Performance	Processing performances for intraoperative use (washing performance)

### **CONCLUSIONS:**

The results of *in vitro* studies demonstrate that the XTRA with software 1.05.0 is substantially equivalent to the unmodified device in terms of safety and effectiveness.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-0002

March 21, 2014

Sorin Group Deutschland GmbH  
% Mr. Barry Sall, PAC  
Principal Consultant  
Parexel Consulting  
195 West Street  
Waltham, MA 02451

Re: K131553  
Trade/Device Name: XTRA Autotransfusion System  
Regulation Number: 21 CFR 868.5830  
Regulation Name: Autotransfusion System  
Regulatory Class: Class II  
Product Code: CAC  
Dated: March 4, 2014  
Received: March 5, 2014

Dear Mr.Sall:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638 2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Bram D. Zuckerman -S**

Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): \_\_\_\_\_K131553\_\_\_\_\_

Device Name: XTRA Autotransfusion System

### Indications for Use:

The XTRA Autotransfusion System is indicated for intraoperative recovery of blood, washing of blood collected in the postoperative period, and preoperative sequestration (with indirect patient connection). Typical clinical applications of autotransfusion include the following surgical specialties:

- Cardiovascular
- Orthopedics
- Thoracic
- Transplant Surgery
- Emergency (Trauma)
- Neurosurgery
- Obstetrics and gynecology
- Urology

Prescription Use   X  

(Part 21 CFR 801 Subpart D)

Over-the-Counter Use \_\_\_\_\_

AND/OR

(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF  
NEEDED)

---

Concurrence of CDRH, Office of Device Evaluation (ODE)

Bram D. Zuckerman -S  
2014.03.21 15:21:39 -04'00'

Page 1 of 1